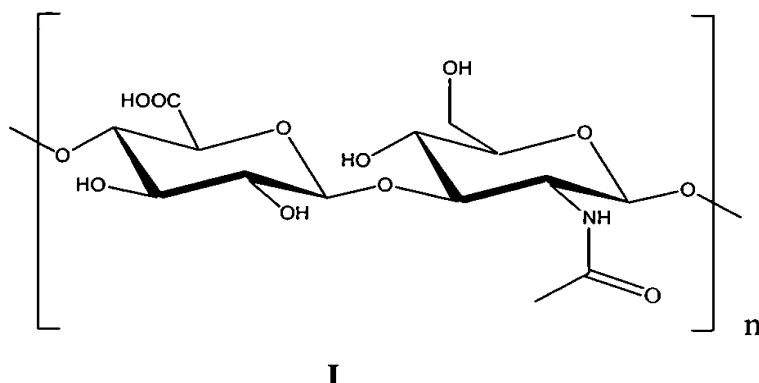


WHAT IS CLAIMED:

1. A composition comprising an effective amount of a hyaluronic acid compound or a salt thereof, and a carrier, wherein the composition can increase growth of vaginal epithelial cells.
2. The composition of claim 1, wherein the composition can increase production of glycogen by vaginal epithelial cells.
3. The composition of claim 2, wherein the production of glycogen is a maturation marker for vaginal epithelial cells.
4. The composition of claim 1, wherein the composition is used to treat or prevent low vaginal cell proliferation, low vaginal cell differentiation or low vaginal moisture.
5. The composition of claim 1, wherein the composition is used to treat or prevent vaginal atrophy.
6. The composition of claim 1, wherein the hyaluronic acid compound or salt thereof comprises (β -1,4-)-linked D-glucuronic acid and (β -1,3-)-N-acetyl-D-glucosamine.
7. The composition of claim 1, wherein the hyaluronic acid compound or salt thereof comprises one or more glucose, glucuronic acid, mannose, mannuronic acid, galactose, galacturonic acid, gulose, guluronic acid, fucose, xylose, N-acetylneuraminic acid, or N-acetyl glucosamine saccharide units.
8. The composition of claim 1, wherein the hyaluronic acid compound or salt thereof is mixed or covalently linked to a non-polysaccharide polymer.
9. The composition of claim 8, wherein the non-polysaccharide polymer is poly(ethylene glycol), poly(vinyl alcohol), poly(vinylpyrrolidone), or poly(2-hydroxyethyl methacrylate).

10. The composition of claim 1, wherein the hyaluronic compound acid or salt thereof comprises a repeating disaccharide unit of formula I:

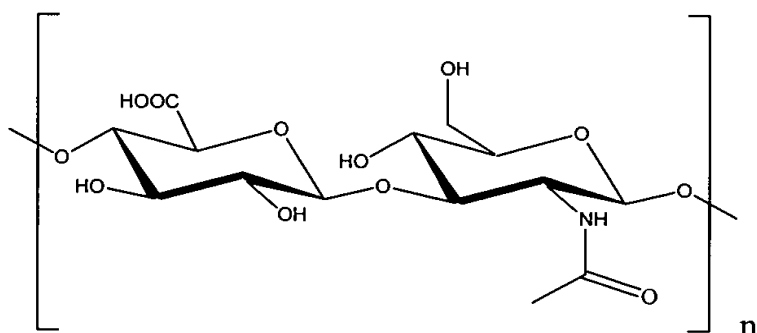


wherein n is an integer of about 1 to about 100,000.

11. The composition of claim 10, wherein a lower alkyl replaces any of the hydrogen atoms from the hydroxy (-OH), carboxylic acid (-COOH) and methylenehydroxy (-CH₂-OH) substituents within one or more of the disaccharide units of formula I.
12. The composition of claim 10, wherein an amino, a sulfate or a lower alkyl amino group replaces any of the OH groups from the hydroxy (-OH), carboxylic acid (-COOH) and methylenehydroxy (-CH₂-OH) substituents within one or more of the disaccharide units of formula I.
13. The composition of claim 1, wherein the effective amount comprises about 0.01 micrograms to about 500 milligrams of hyaluronic acid compound or salt thereof.
14. The composition of claim 1, wherein the composition further comprises an anti-bacterial, anti-fungal or anti-viral agent.
15. The composition of claim 1, wherein the composition is administered topically or intra-vaginally.
16. The composition of claim 1, wherein the composition is a lotion, cream, gel or suspension.

17. A vaginal insert for increasing vaginal cell growth in a mammal comprising an effective amount of a hyaluronic acid compound or a salt thereof, and a carrier, wherein the composition can increase growth of mammalian epithelial cells.
18. The vaginal insert of claim 17, wherein the composition can increase production of glycogen by vaginal epithelial cells.
19. The vaginal insert of claim 18, wherein the production of glycogen is a maturation marker for vaginal epithelial cells.
20. The vaginal insert of claim 17, wherein the composition is used to treat or prevent low vaginal cell proliferation, low vaginal cell differentiation or low vaginal moisture.
21. The vaginal insert of claim 17, wherein the composition is used to treat or prevent vaginal atrophy.
22. The vaginal insert of claim 17, wherein the hyaluronic acid compound or salt thereof comprises (β -1,4-)-linked D-glucuronic acid and (β -1,3-)-N-acetyl-D-glucosamine.
23. The vaginal insert of claim 17, wherein the hyaluronic acid compound or salt thereof comprises one or more glucose, glucuronic acid, mannose, mannuronic acid, galactose, galacturonic acid, gulose, guluronic acid, fucose, xylose, N-acetylneuraminic acid, or N-acetyl glucosamine saccharide units.
24. The vaginal insert of claim 17, wherein the hyaluronic acid compound or salt thereof is mixed or covalently linked to a non-polysaccharide polymer.
25. The vaginal insert of claim 24, wherein the non-polysaccharide polymer is poly(ethylene glycol), poly(vinyl alcohol), poly(vinylpyrrolidone), or poly(2-hydroxyethyl methacrylate).

26. The vaginal insert of claim 17, wherein the hyaluronic compound acid or salt thereof comprises a repeating disaccharide unit of formula I:

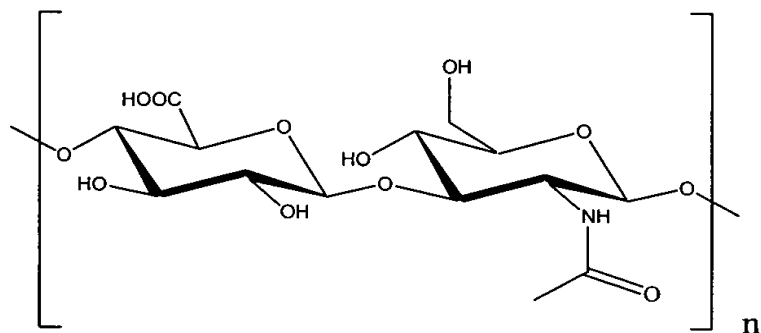


I

wherein n is an integer of about 1 to about 100,000.

27. The vaginal insert of claim 26, wherein a lower alkyl replaces any of the hydrogen atoms from the hydroxy (-OH), carboxylic acid (-COOH) and methylenehydroxy (-CH₂-OH) substituents within one or more of the disaccharide units of formula I.
28. The vaginal insert of claim 26, wherein an amino, a sulfate or a lower alkyl amino group replaces any of the OH groups from the hydroxy (-OH), carboxylic acid (-COOH) and methylenehydroxy (-CH₂-OH) substituents within one or more of the disaccharide units of formula I.
29. The vaginal insert of claim 17, wherein the effective amount comprises about 0.01 micrograms to about 500 milligrams of hyaluronic acid compound or salt thereof.
30. The vaginal insert of claim 17, wherein the composition further comprises an anti-bacterial, anti-fungal or anti-viral agent.
31. A method for preventing or treating a vaginal condition in a mammal comprising administering to a mammal an effective amount of a composition comprising a hyaluronic acid compound or a salt thereof, wherein the hyaluronic acid compound or salt thereof can increase growth of mammalian epithelial cells.

32. The method of claim 31, wherein the condition comprises low vaginal cell proliferation, low vaginal cell differentiation or low vaginal moisture.
33. The method of claim 31, wherein the condition is vaginal atrophy.
34. The method of claim 31, wherein the composition can increase production of glycogen by vaginal epithelial cells.
35. The method of claim 34, wherein the production of glycogen is a maturation marker for vaginal epithelial cells.
36. The method of claim 31, wherein the composition can increase vaginal moisture.
37. The method of claim 31, wherein the hyaluronic acid compound or salt thereof comprises (β -1,4-)-linked D-glucuronic acid and (β -1,3-)-N-acetyl-D-glucosamine.
38. The method of claim 31, wherein the hyaluronic acid compound or salt thereof further comprises one or more glucose, glucuronic acid, mannose, mannuronic acid, galactose, galacturonic acid, gulose, guluronic acid, fucose, xylose, N-acetylneuraminic acid, or N-acetyl glucosamine saccharide units.
39. The method of claim 31, wherein the hyaluronic acid compound or salt thereof is mixed or covalently linked to a non-polysaccharide polymer.
40. The method of claim 39, wherein the non-polysaccharide polymer is poly(ethylene glycol), poly(vinyl alcohol), poly(vinylpyrrolidone), or poly(2-hydroxyethyl methacrylate).
41. The method of claim 31, wherein the hyaluronic compound acid or salt thereof comprises a repeating disaccharide unit of formula I:



I

wherein n is an integer of about 1 to about 100,000.

42. The method of claim 41, wherein a lower alkyl replaces any of the hydrogen atoms from the hydroxy (-OH), carboxylic acid (-COOH) and methylenehydroxy (-CH₂-OH) substituents within one or more of the disaccharide units of formula I.
43. The method of claim 41, wherein an amino, a sulfate or a lower alkyl amino group replaces any of the OH groups from the hydroxy (-OH), carboxylic acid (-COOH) and methylenehydroxy (-CH₂-OH) substituents within one or more of the disaccharide units of formula I.
44. The method of claim 31, wherein the effective amount comprises about 0.01 micrograms to about 500 milligrams of hyaluronic acid compound or salt thereof.
45. The method of claim 31, wherein the composition further comprises an anti-bacterial, anti-fungal or anti-viral agent.
46. The method of claim 31, wherein the composition is administered topically or intra-vaginally.
47. The method of claim 31, wherein the composition is a lotion, cream, gel or suspension.